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TITLE OF THE INVENTION

DISH RACK FOR A DISHWASHER

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application claims priority to German Patent Application No. 200 04 244.0, filed March 9, 2000. The contents of that application are incorporated herein by reference in their entirety.

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

[0002] The present invention relates to a dish rack for a dishwasher.

DISCUSSION OF THE BACKGROUND

[0003] Dishwashers in the market feature at least one dish rack for holding and arranging the dishes, flatware and other items to be washed. The dish racks in these dishwashers are customarily manufactured with frames made of steel wire. Because of the risk of corrosion from the chemicals used in dishwashers, the dish racks are usually coated with an anticorrosive made of organic polymers. The color of the coating varies according to the design of the machine equipped with the rack and is produced by adding commercial pigments to the coating. Smooth surfaces are particularly preferred for the coating and are therefore generally customary, because the user assumes that no residual foreign matter will stick to these surfaces. When the washing is finished, drops of water usually remain on the contact points where the dishes rest on the rack and do not vaporize easily. The dishes

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therefore remain wet. To vaporize these drops and dry the dishes quickly, it is necessary to increase vaporization energy. As a result, power consumption increases.

SUMMARY OF THE INVENTION

[0004] According to one aspect of the present invention, a dish rack for a dishwasher, includes a frame and a coating covering the frame and configured to distribute water over a surface of the coating in a thin film.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] A more complete appreciation of the invention and many of the attendant advantages thereof will be readily obtained as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings, wherein:

Figure 1 is a schematic view of a dish rack according to one embodiment of the present invention; and

Figure 2 is a cross-sectional view of the dishwasher rack shown in Figure 1.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0006] The preferred embodiments will now be described with reference to the accompanying drawings, wherein like reference numerals designate corresponding or identical elements throughout the various drawings.

[0007] A dish rack according to the present invention ensures in a simple manner that the water running off the dishes, which collects as drops at the contact points between rack and dishes in conventional dish racks, distributes itself over the rack's surface and consequently

vaporizes more easily. Also, a dish rack according to the present invention draws drops of water away from the contact points.

[0008] Figure 1 is a schematic view of a dish rack according to one embodiment of the present invention and Figure 2 is a cross-sectional view of the dishwasher rack shown in Figure 1.

[0009] Referring to Figures 1 and 2, a dish rack 1 for a dishwasher 2 includes a frame 11 and a coating 12 covering the frame 11. The coating 12 distributes water over a surface of the coating 12 in a thin film. Consequently, the water is distributed uniformly as a film across the entire coated surface and vaporizes quickly with little addition of heat.

[0010] According to another embodiment of the present invention, a dish rack includes a plastic coating which has an average roughness $R_z \geq 5 \mu\text{m}$ and which feels smooth nevertheless. The peak-to-valley-height is measured in accordance with DIN 4768 using the Rodenstock RM 600 laser profilometer. The measurement is performed by scanning the surface with a laser beam. Mechanical detectors, such as the Perthometer M4P, display values that are too small.

[0011] In these embodiments, the dish racks may be a wire frame coated with plastic. For example, the wire frame of the dish racks may be manufactured of a structural steel. However, a dish rack according to the present invention is coated with a coating that distributes water in the manner described above. According to the present invention, a coating may be plastic, substantially polyamide or polyamide, and deposited by a plastic coating process. Such a coating may be deposited by a coating process such as one described in DE-OS 2050905, for example.

[0012] According to the present invention, a dishwasher rack can be manufactured in a simple manner without any extra cost, improves its overall appearance, and ensure that the dishes will be dried without any noticeable energy expenditure.

[0013] Obviously, numerous modifications and variations of the present invention are possible in light of the above teachings. It is therefore to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described herein.